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## Apple II Workstation Card: Workstations and Zones (2/97)

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Security: Everyone

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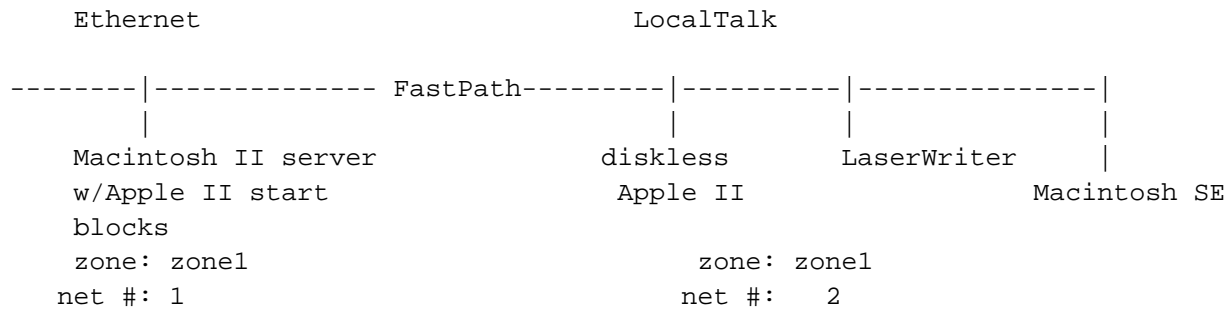
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TOPIC -----

This article discusses the ways in which the Apple II Workstation Card understands zones and network IDs. Some of the discussion refers to the following setup diagram:

DISCUSSION -----

Setup:



The only zone-related limitation concerns starting an Apple II diskless workstation. The ProDOS-prepared AppleShare server must be within the same zone as the diskless workstation. Once the Apple II has started over the network, the Workstation Card and the Apple IIGS are fully aware of zones and network IDs. This means that, once started, the Apple II can log on any ProDOS-prepared, AppleShare file server in any zone available on the Internet. The number of bridges or zones does not affect the access to another server.

When the Apple II broadcasts an AppleTalk Transaction Protocol (ATP) request,

this ATP request is sent across the entire zone in search of a file server with boot blocks. In the given example, both 'net#1' and 'net#2' are in the same zone, "zone1". The FastPath passes zone broadcasts from either "net#1" or "net#2" to the other.

Once startup is completed, the AppleShare II Workstation software is executed. From this application, the user can choose the appropriate zone and log on to the desired ProDOS-prepared server. At this time, Name Binding Protocol (NBP) translates the names into the associated Internet socket addresses of the corresponding network entities. In this case, the Apple II workstation name is translated to an address, and the server name is translated to an address. These addresses notate network IDs, zone IDs, bridge IDs, and network entity IDs.

When a workstation is instructed to print, it looks for the chosen printer with the address provided by NBP. The address specifies the location of the printer. Because the printer is on "net#2" (the same network as the Macintosh SE), the FastPath determines that the address belongs on "net#2". The FastPath does not accept the traffic, because the address is local to "net#2". However, when the Apple II requests service from the server, the FastPath recognizes the address as one that belongs to "net#1". In this condition, the FastPath lets the request travel over the bridge to the server.

Typically, routing is handled at the fourth OSI layer, the transport layer of AppleTalk. Manufacturers working with AppleTalk use the transport layer to handle routing. Manufacturers working with other protocols may handle routing at a higher layer in the OSI model.

#### Article Change History:

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